

DIRECT TESTIMONY
OF
CAROLINA POWER & LIGHT COMPANY WITNESS
J. DAVID SMITH

SCPSC DOCKET NO. 96-188-E

1 Q: What is your name and where are you employed?

2 A: My name is J. David Smith and I work for Carolina Power & Light Company at 1601
3 West Lucas Street in Florence, South Carolina.

4 Q: What is your educational background?

5 A: I am a 1965 graduate of North Carolina State University. I was graduated with a
6 Bachelor of Science Degree in Agricultural Engineering.

7 Q.: What is your experience and current position with CP&L?

8 A: I am the Engineering Supervisor - Southern Region, for the Southern Region Engineering
9 and Operating Section, Customer Services Group, which is responsible for the Region's
10 long range distribution facilities plan, and the integration of the Region's distribution
11 facilities plan into an overall Customer Services Group plan. I have held various
12 positions in the Customer Services Group for over 28 years. I was the Sumter District
13 Customer Service Manager from 1973 through 1987. From 1987 through 1989 I was the
14 Southern Division Technical Manager and I have been in my current position since 1989.

15 Q: Why is it necessary for CP&L to build the major utility facility described in Ms.
16 Brickhouse's testimony?

17 A: Currently the West Florence area is served by six 23kV distribution feeders from three
18 substations. These substations are each located, on average, 2.4 miles northwest,

1 northeast and southeast of the Five Points area. The overall Florence area growth rate is
2 3.5% while the Five Points area has grown 63% since 1994. Approximately 30% of the
3 125MVA capacity of the three West Florence area substations are devoted to serving the
4 Five Points area.

5 There are 4 factors that are forcing CP&L to take action to address service reliability in
6 the West Florence area served by the above mentioned substations and feeders. These
7 factors are: 1) due to growing demand for electric power in the northwest Florence area,
8 particularly along the Business I-20 spur and South Carolina Highway 29 (North Cashua
9 Drive), existing transmission and distribution facilities are not able to reliably provide
10 adequate service to this area during periods of heavy seasonal demand; 2) the proposed
11 Florence Cashua 230kV substation will relieve three 23kV feeders which have already
12 exceeded their recommended loading guidelines by 7%; 3) due to the length of the
13 feeders serving the load in the Five Points area, the electrical losses associated with these
14 lines are significant and will increase as load growth continues in this area; and 4) the
15 area in question is experiencing solid growth (particularly the commercial customers
16 along the Business I-20 spur and North Cashua Drive), as this growth continues CP&L
17 will have to take action to upgrade the facilities used to serve this area. The new
18 substation site is within one mile of at least 35MVA of existing load. In addition, most of
19 the future spot loads that have been identified are within a one mile radius of the site.

20 Q: Please explain all of the alternative methods studied by CP&L to determine the most
21 appropriate solution to the problems you just described.

1 A: The first alternative was to build an express feeder from the Florence West 230kV
2 substation to the Five Points area along Sumter Street and North Cashua Drive. This
3 alternative would not address the line losses I discussed earlier and would not materially
4 improve the reliability of service in this area. This alternative would also require a
5 capacity increase at the Florence West 230kV substation.

6 The second alternative was to build an express feeder from the Florence Ebenezer 230kV
7 substation to the Five Points area along West Palmetto Street. This alternative would be
8 less beneficial than alternative #1 because the Florence Ebenezer 230kV substation is
9 approximately 1.5 miles further from the Five Points area than the Florence West 230kV
10 substation and would also require a capacity increase at the Florence Ebenezer 230kV
11 substation.

12 The third alternative was to build an express feeder from the Florence Mt. Hope 115kV
13 substation along Cherokee Road and/or Palmetto Street. Like the above alternatives, no
14 electrical loss savings would be derived from this option since the Florence Mt. Hope
15 115kV substation is approximately the same distance from the Five Points area as the
16 Florence Ebenezer 230kV substation. Constructing a double circuit feeder along
17 Cherokee Road would also have met with opposition from property owners due to the
18 tree clearing that would be required along this scenic route.

19 The fourth alternative, which is the alternative we are recommending, was to build a
20 230kV substation north of the Five Points area in the vicinity of the intersection of
21 Cashua Drive and Darlington Street. The substation will be built in close proximity to
22 the Five Points area that is currently served by three of the four feeders from the Florence

1 West 230kV substation. This alternative would relieve these three feeders and allow
2 them to serve the growing load along North Cashua Drive, Hoffmeyer Road, West Evans
3 Street, and the I-20 spur.

4 Q: Will the proposed facility serve the interest of system economy and reliability?

5 A: Yes, for the reasons described above, the proposed solution is both the most economical
6 and will produce the greatest service reliability.

7 Q: Does the public convenience and necessity require the construction of this facility?

8 A: Yes, in the absence of this facility CP&L will experience increasing line losses and
9 CP&L will not be able to reliably serve this area.

10 Q: Do any property owners affected by this utility construction oppose the project?

11 A: The purchase of the substation lot was completed in 1991. There are five parcels of land
12 affected by the transmission line. Each property owner was notified during May 1995 of
13 the Company's intent to construct the line and substation. The centerline survey was
14 started in June 1995 and completed in July 1995. Out of the five parcels affected,
15 transmission rights-of-way has been obtained for one parcel and outstanding offers are
16 being considered for two parcels. Owners of the remaining two parcels have objected to
17 the project. It appears that the primary reason these two property owners object to the
18 line is they believe their property is worth more than the appraised value. One of the
19 properties is currently being used as an automobile used car parts business. The other
20 property is currently being used for farmland. CP&L is continuing to negotiate with these
21 property owners. Every effort will be made to settle all parcels without condemnation.

1 Q: Does this conclude your testimony?

2 A: Yes.

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